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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,101	01/03/2005	Wataru Fushimi	1163-0517PUS1	9187

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
TORRES, JOSEPH D	

ART UNIT	PAPER NUMBER
2112	

NOTIFICATION DATE	DELIVERY MODE
02/01/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/520,101	FUSHIMI ET AL.	
	Examiner	Art Unit	
	Joseph D. Torres	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) *3-5* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 6-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/03/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, Claims 1, 2, and 6-9 in the reply filed on 01/11/2008 is acknowledged. The traversal is on the ground(s) that claims 3 and 4 recite all of the limitations of claim 1 and that claims 1, 3 and 4 all share technical features and modes of operation. This is not found persuasive because claim 1 recites "a redundant packet generating unit for accepting the encoded voice signal from said voice encoding unit" depicted in Figure 1 of the Applicant's drawings whereas claim 3 recites "two more redundant packet generating units each for accepting the encoded voice signal from said voice encoding unit" depicted in Figure 5 of the Applicant's drawings; hence, claim 3 lacks a **single** redundant packet generating unit for accepting the encoded voice signal from said voice encoding unit and hence claim 3 recites a completely different function and mode of operation. Claim 4 recites "two or more redundant packet generating units each for accepting the encoded voice signal from one of said two or more voice encoding units" depicted in Figure 7 of the Applicant's drawings; hence, claim 4 lacks a **single** redundant packet generating unit for accepting the encoded voice signal from said voice encoding unit and hence claim 4 recites a completely different function and mode of operation. Furthermore; Figure 1, 5 and 7 in the Applicant's drawings are taught as distinct inventions.

The requirement is still deemed proper and is therefore made FINAL.

Claims 3-5 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 01/11/2008.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it includes numerical references to the drawings which must be deleted. Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 2, are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper

dependent form, or rewrite the claim(s) in independent form. Claim 1 recites "A packet transmission apparatus" in the preamble of claim 1. Claim 2 fails to recite any structural element that is a part of an apparatus further limiting the apparatus of claim 1. Claim 2 instead attempts to characterize the operation of the signal detection unit of claim 1 in terms of its intended use.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. Claim 1 recites "A packet transmission apparatus" in the preamble of claim 1. Claim 2 attempts to characterize the operation of the signal detection unit of claim 1 in terms of its intended use. Claim 2 omits any recitation of any structural element that is a part of an apparatus further limiting the apparatus of claim 1 for carrying out the intended use recited in claim 2.

Claims 2, are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the structural

relationships between structural elements of claim 1 that provide for carrying out the intended use recited in claim 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jagadeesan; Ramanathan et al. (US 7072291 B1, hereafter referred to as Jagadeesan) in view of Borella; Michael S. et al. (US 6434606 B1, hereafter referred to as Borella) in further view of Moon; Yong-Suk et al. (US 7283509 B2, hereafter referred to as Moon).

35 U.S.C. 103(a) rejection of claim 1.

Jagadeesan teaches a packet generating unit for accepting the encoded voice signal from said voice encoding unit, and for assembling packets from the encoded voice signal and outputting them (Main Encoder 110 in Figure 1 of Jagadeesan); a redundant packet generating unit for accepting the encoded voice signal from said voice encoding unit, and for assembling redundant packets to each of which error correction data is added and outputting the redundant packets (Redundant Encoder 140 in Figure 1 of Jagadeesan); and a selector unit for selecting, as an output source that furnishes packets to a transmission destination, either said packet generating unit or said redundant packet generating unit (Transmit Buffer 130 in Figure 1 of Jagadeesan teaches that packets B received from Main Encoder 110 and redundant packets D received from Redundant Encoder 140 are multiplexed into a single data stream E, which clearly suggests a selector for selecting a particular packet B or D to be multiplexed onto data stream E at a particular time). Col. 2, lines 55-56 in Jagadeesan clearly suggest the use of an upstream voice encoder since Main Encoder 110 receives voice data as input.

However Jagadeesan does not explicitly teach the specific use of a voice encoding unit for voice-encoding an incoming voice band signal.

Borella, in an analogous art, teaches use of a voice encoding unit for voice-encoding an incoming voice band signal (col. 5, lines 65-67 in Borella teaches that encoder 580 used to submit voice data to packetizer 590 in Figure 1 of Borella is a Voice Encoder).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jagadeesan with the teachings of Borella by including

use of a voice encoding unit for voice-encoding an incoming voice band signal. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of a voice encoding unit for voice-encoding an incoming voice band signal would have provided encoding for a channel intended to communicate voice (col. 5, lines 65-67 in Borella).

However Jagadeesan and Borella do not explicitly teach the specific use of a signal detecting unit for determining whether or not said voice band signal is a signal associated with predetermined data communications, and for controlling selection by said selector unit according to a result of the determination.

Moon, in an analogous art, teaches use of a signal detecting unit for determining whether or not said voice band signal is a signal associated with predetermined data communications, and for controlling selection by said selector unit according to a result of the determination (Col. 9, lines 55-67 in Moon teaches Contoller 626 for controlling Packet Selector 620 is a signal detecting unit for determining whether or not said voice band signal is a signal associated with predetermined data communications modulation mode and a coding rate provided from an upper layer, and for controlling selection by said Packet selector unit 620 according to a result of the determination).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jagadeesan and Borella with the teachings of Moon by including use of a signal detecting unit for determining whether or not said voice band signal is a signal associated with predetermined data communications, and for

controlling selection by said selector unit according to a result of the determination. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of a signal detecting unit for determining whether or not said voice band signal is a signal associated with predetermined data communications, and for controlling selection by said selector unit according to a result of the determination would have provided reduced frame error rate (Col. 7, lines 1-5 in Moon).

35 U.S.C. 103(a) rejection of claim 2.

Claim 2 fails to recite any structural element that is a part of an apparatus further limiting the apparatus of claim 1, hence claim 2 is rejected for the same reasons as claim 1.

35 U.S.C. 103(a) rejection of claim 6.

CRC Check in Figure 7 of Moon is a line quality monitoring unit for monitoring a line quality of a transmission line.

Col. 9, lines 55-67 in Moon teaches Contoller 626 responsive to line quality monitoring CRC Check unit in Figure 7 of Moon for controlling a degree of transmission-error-tolerance/code rate of the redundant packets assembled by said redundant packet generating unit according to the line quality signal from line quality monitoring CRC Check unit.

35 U.S.C. 103(a) rejection of claim 7.

CRC Check in Figure 7 of Moon is a line quality monitoring unit for monitoring a line quality of a transmission line.

Col. 9, lines 55-67 in Moon teaches Contoller 626 responsive to line quality monitoring CRC Check unit in Figure 7 of Moon for controlling a degree of transmission-error-tolerance/code rate of the redundant packets assembled by said redundant packet generating unit according to the line quality signal from line quality monitoring CRC Check unit.

Contoller 626 in Figure 6 of Moon comprises a line quality information acquiring unit for receiving line quality information about a line quality of a transmission line from a CRC Check unit in receive apparatus of Figure 7 in Moon connected to said packet transmission apparatus via said transmission line, and for controlling a degree of transmission-error-tolerance/code rate of the redundant packets assembled by said redundant packet generating unit according to the line quality information

35 U.S.C. 103(a) rejection of claim 8.

Col. 4, lines 18-56 in Moon clearly suggest that Contoller 626 in Figure 6 of Moon comprises a transmission rate monitoring unit for monitoring a transmission rate of signals sent out onto a transmission line, and for controlling a degree of transmission-error-tolerance/code rate of the redundant packets assembled by said redundant packet generating unit according to the transmission rate.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jagadeesan; Ramanathan et al. (US 7072291 B1, hereafter referred to as Jagadeesan), Borella; Michael S. et al. (US 6434606 B1, hereafter referred to as Borella) and Moon; Yong-Suk et al. (US 7283509 B2, hereafter referred to as Moon) in view of Kiriyama; Takashi (US 5579303 A).

35 U.S.C. 103(a) rejection of claim 9.

Jagadeesan, Borella and Moon substantially teaches the claimed invention described in claims 1, 2 and 6-8 (as rejected above).

However Jagadeesan, Borella and Moon do not explicitly teach the specific use of a congestion condition monitoring unit for monitoring a congestion state of signals to be processed within said apparatus, and for controlling a degree of transmission-error-tolerance of the redundant packets assembled by said redundant packet generating unit according to the congestion state.

Kiriyama, in an analogous art, teaches use of a congestion condition monitoring unit for monitoring a congestion state of signals to be processed within said apparatus, and for controlling a degree of transmission-error-tolerance of the redundant packets assembled by said redundant packet generating unit according to the congestion state (col. 2, lines 3-23 in Kiriyama).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jagadeesan, Borella and Moon with the teachings of Kiriyama by including use of a congestion condition monitoring unit for monitoring a

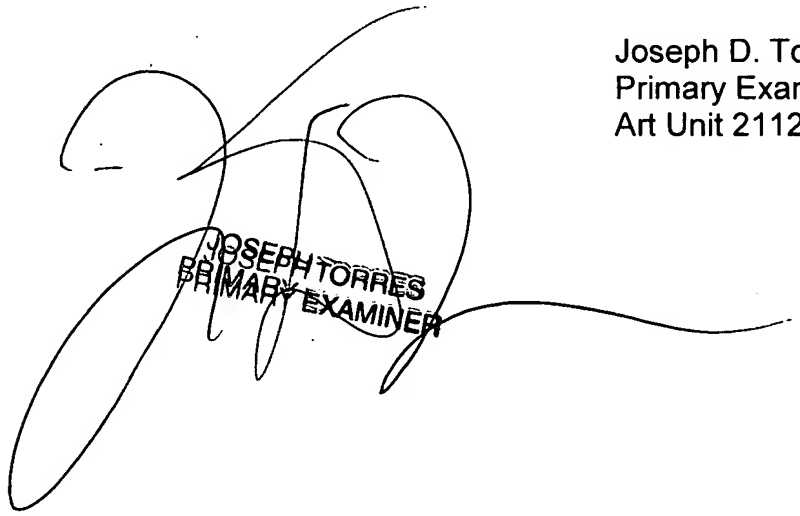
congestion state of signals to be processed within said apparatus, and for controlling a degree of transmission-error-tolerance of the redundant packets assembled by said redundant packet generating unit according to the congestion state. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of a congestion condition monitoring unit for monitoring a congestion state of signals to be processed within said apparatus, and for controlling a degree of transmission-error-tolerance of the redundant packets assembled by said redundant packet generating unit according to the congestion state would have provided increased transmission efficiency (col. 2, lines 3-23 in Kiriyama).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joseph D. Torres, PhD
Primary Examiner
Art Unit 2112